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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,440	09/08/2003	Kazumasa Masuda	KITO3.001AUS	1430

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KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

HALL, DEANNA K

ART UNIT	PAPER NUMBER
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3767

NOTIFICATION DATE	DELIVERY MODE
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06/26/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary

Application No.

10/657,440

Applicant(s)

KAZUMASA MASUDA; ATSUSHI HATCHO

Examiner

Deanna K. Hall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :September 8, 2003; January 12, 2004; February 16, 2007.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on February 16, 2007, January 12, 2004 and September 8, 2003 are in compliance with the provisions of 37 CFR 1.97(b). Accordingly, the IDSs are being considered by the Examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Uber, III et al. (US 5,840,026) ("Uber").**

The following claim limitations are disclosed in the aforementioned Uber patent in Figures 2, 3a and 3b, Table I, C2 L66- C3 L28 and C5 L21-C8 L62.

Uber discloses:

A liquid injection mechanism for injecting a contrast medium into a subject; pattern storing means for registering data of a variable pattern in which an injection rate of the contrast medium for keeping an image contrast of the fluoroscopic image within a predetermined range varies with time; and rate controlling means for varying an operating speed of said liquid injection mechanism with time according to said variable

pattern.

Pattern storing means comprises means for registering the data of the variable pattern in order to maintain a state in which the image contrast of the fluoroscopic image that is produced by said contrast medium approximates an optimum level.

Total amount entering means for accepting entered data of a total amount of the contrast medium to be injected into the subject; said rate controlling means comprising means for increasing or reducing said injection rate in elapsed times according to said variable pattern depending on said total amount of the contrast medium to be injected into the subject.

Data entering means for accepting entered data of the body weight of the subject; and total calculating means for increasing or reducing said total amount of the contrast medium to be injected into the subject in proportion to the body weight whose data has been entered by said data entering means.

Coefficient storing means for registering data of predetermined coefficients assigned to respective regions to be imaged of the subject; data entering means for accepting entered data of a region to be imaged of the subject; coefficient reading means for reading the data of one of the coefficients from said coefficient storing means depending on the region to be imaged of the subject whose data has been entered by said data entering means; and total calculating means for correcting said total amount of the contrast medium to be injected into the subject by multiplying said total amount by the coefficient whose data has been read by said coefficient reading means.

The contrast medium is available in a plurality of types having different

concentrations of an effective component contained therein, further comprising:
concentration storing means for registering data of the different concentrations in the types of said contrast medium; data entering means for accepting entered data of a type of the contrast medium; concentration reading means for reading data of the concentration from said concentration storing means depending on the type of the contrast medium whose data has been entered by said data entering means; and total calculating means for increasing or reducing said total amount of the contrast medium to be injected into the subject in inverse proportion to said concentration whose data has been read by said concentration reading means.

The contrast medium is available in a plurality of types having different concentrations of an effective component contained therein, further comprising:
concentration storing means for registering data of the different concentrations in the types of said contrast medium; coefficient storing means for registering data of predetermined coefficients assigned to respective regions to be imaged of the subject; data entering means for accepting entered data of at least the body weight of the subject, a region to be imaged of the subject, and one of the types of the contrast medium; concentration reading means for reading data of the concentration from said concentration storing means depending on the type of the contrast medium whose data has been entered by said data entering means; coefficient reading means for reading the data of one of the coefficients from said coefficient storing means depending on the region to be imaged of the subject whose data has been entered by said data entering means; and total calculating means for correcting said total amount of the contrast

medium to be injected into the subject, which has been increased or reduced in proportion to said body weight and in inverse proportion to said concentration, by multiplying said total amount by said one of the coefficients.

Uber further discloses varying an injection rate of said contrast medium with time according to said variable pattern.

Accepting entered data of a total amount of the contrast medium to be injected into the subject; and increasing or reducing said injection rate in elapsed times according to said variable pattern depending on said total amount of the contrast medium to be injected into the subject.

Registering data of the different concentrations in the types of said contrast medium; registering data of predetermined coefficients assigned to respective regions to be imaged of the subject; accepting entered data of at least the body weight of the subject, a region to be imaged of the subject, and one of the types of the contrast medium; reading data of the concentration depending on the type of the contrast medium whose data has been entered; reading the data of one of the coefficients depending on the region to be imaged of the subject whose data has been entered; and correcting said total amount of the contrast medium to be injected into the subject, which has been increased or reduced in proportion to said body weight and in inverse proportion to said concentration, by multiplying said total amount by said one of the coefficients.

Uber further discloses a computer unit comprising: pattern storing means for registering data of a variable pattern in which an injection rate of the contrast medium

varies with time; and rate controlling means for varying an operating speed of said liquid injection mechanism with time according to said variable pattern.

Total amount entering means for accepting entered data of a total amount of the contrast medium to be injected into the subject; said rate controlling means comprising means for increasing or reducing said injection rate in elapsed times according to said variable pattern depending on said total amount of the contrast medium to be injected into the subject.

Concentration storing means for registering data of the different concentrations in the types of said contrast medium; coefficient storing means for registering data of predetermined coefficients assigned to respective regions to be imaged of the subject; data entering means for accepting entered data of at least the body weight of the subject, a region to be imaged of the subject, and one of the types of the contrast medium; concentration reading means for reading data of the concentration from said concentration storing means depending on the type of the contrast medium whose data has been entered by said data entering means; coefficient reading means for reading the data of one of the coefficients from said coefficient storing means depending on the region to be imaged of the subject whose data has been entered by said data entering means; and total calculating means for correcting said total amount of the contrast medium to be injected into the subject, which has been increased or reduced in proportion to said body weight and in inverse proportion to said concentration, by multiplying said total amount by said one of the coefficients.

The computer program to carry out a process of varying an operating speed of

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said liquid injection mechanism with time according to said variable pattern.

The computer program accepting entered data of a total amount of the contrast medium to be injected into the subject; and Increasing or reducing said injection rate in elapsed times according to said variable pattern depending on said total amount of the contrast medium to be injected into the subject.

Enabling said computer to carry out a process comprising the steps of: registering data of the different concentrations in the types of said contrast medium; registering data of predetermined coefficients assigned to respective regions to be imaged of the subject; accepting entered data of at least the body weight of the subject, a region to be imaged of the subject, and one of the types of the contrast medium; reading data of the concentration depending on the type of the contrast medium whose data has been entered; reading the data of one of the coefficients depending on the region to be imaged of the subject whose data has been entered; and correcting said total amount of the contrast medium to be injected into the subject, which has been increased or reduced in proportion to said body weight and in inverse proportion to said concentration, by multiplying said total amount by said one of the coefficients.

An information storage medium storing therein a computer program which is to be read by a computer unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deanna K. Hall whose telephone number is 571-272-2819. The examiner can normally be reached on M-F 8:00am-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on 571-272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Deanna K. Hall
Examiner
AU 3767

dkh

KEVIN C. SIRMONS
SUPERVISORY PATENT EXAMINER

